

03050204-020
(Shaw Creek)

General Description

Watershed 03050204-020 is located in Aiken and Edgefield Counties and consists primarily of *Shaw Creek* and its tributaries. The watershed occupies 86,451 acres of the Sandhills and Upper Coastal Plain regions of South Carolina. The predominant soil types consist of an association of the Fuquay-Troup-Lakeland-Orangeburg-Wagram series. The erodibility of the soil (K) averages 0.15; the slope of the terrain averages 5%, with a range of 0-25%. Land use/land cover in the watershed includes: 1.38% urban land, 31.04% agricultural land, 7.01% scrub/shrub land, 0.20% barren land, 55.69% forested land, 4.01% forested wetland (swamp), and 0.62% water.

Shaw Creek originates near the Town of Trenton and flows past the City of Aiken to drain into the South Fork Edisto River. There are numerous recreational ponds and lakes in the watershed, and several in the upper portion of the watershed are used for irrigational purposes as well. Shaw Creek receives drainage from Buck Branch and Tiger Creek before flowing through Lone Pond and accepting drainage from Hillyer Branch, Paces Branch, Beaverdam Branch, Hall Branch, Melton Branch, Curry Branch, Mason Branch, Boggy Branch, Brogdon Branch, Dairy Branch, and Long Branch. The river then accepts drainage from Bradley Mill Branch, Joyce Branch, Redds Branch, Clearwater Branch, Chavous Branch, and Cedar Branch (Cedar Lake). There are a total of 144.8 stream miles in this watershed, all classified FW.

Water Quality

<u>Station #</u>	<u>Type</u>	<u>Class</u>	<u>Description</u>
E-579	BIO	FW	SHAW CREEK AT S-02-153
E-094	P	FW	SHAW CREEK AT S-02-26, 4.2 MI NE AIKEN
E-106	W	FW	SHAW CREEK AT S-02-576

Shaw Creek - There are three SCDHEC monitoring sites along Shaw Creek. Aquatic life uses are fully supported at the upstream site (E-579) based on macroinvertebrate community data. At the midstream site (E-094), aquatic life uses are fully supported, but there is a significant decreasing trend in pH, a significant increasing trend in turbidity, and a very high concentration of zinc measured in 1996. Significant decreasing trends in five-day biochemical oxygen demand and total phosphorus concentrations suggest improving conditions for these parameters. Recreational uses are partially supported due to fecal coliform bacteria excursions. Aquatic life and recreational uses are fully supported at the downstream site (E-106). This is a blackwater system, characterized by naturally low pH and dissolved oxygen concentrations. Although pH excursions were noted at E-094 and E-106, they were typical of values seen in such systems.

A fish consumption advisory has been issued by the Department for mercury and includes the streams within this watershed (see advisory p.31).

Permitted Activities

Point Source Contributions

**RECEIVING STREAM
FACILITY NAME
PERMITTED FLOW @ PIPE (MGD)
COMMENT**

**NPDES#
TYPE
LIMITATION**

SHAW CREEK
KENTUCKY TENNESSEE CLAY CO.
PIPE #: 001 FLOW: M/R

SCG730046
MINOR INDUSTRIAL
EFFLUENT

SHAW CREEK
UNITED CATALYSTS
PIPE #: 001 FLOW: M/R

SC0043456
MINOR INDUSTRIAL
EFFLUENT

SHAW CREEK
CITY OF AIKEN/SHAW CREEK WATER TRT PLT
PIPE #: 001 FLOW: M/R

SCG641003
MINOR DOMESTIC
EFFLUENT

CLEARWATER CREEK
UNITED CATALYSTS
PIPE #: 001 FLOW: M/R

SC0043456
MINOR INDUSTRIAL
EFFLUENT

PACES BRANCH
ECW&SA/TRENTON CITY
PIPE #: 001 FLOW: 0.073
WQL FOR NH3-N, DO, TRC

SC0025682
MINOR MUNICIPAL
WATER QUALITY

JOYCE BRANCH
ECC AMERICA, INC./PAYNE MINE
PIPE #: 001 FLOW: M/R

SC0042552
MINOR INDUSTRIAL
EFFLUENT

**LAND APPLICATION
FACILITY NAME**

**PERMIT#
TYPE**

SPRAYFIELD
HOMAT/RAMADA INN

ND0065871
DOMESTIC

SPRAYFIELD
SC FORESTRY/TAYLOR TREE NURSERY

ND0076830
INDUSTRIAL

SPRAYFIELD
OWENS CORNING

ND0070963
INDUSTRIAL

Camp Facilities

**FACILITY NAME/TYPE
RECEIVING STREAM**

**PERMIT #
STATUS**

PINEACRES CAMPGROUND/FAMILY
BUCKHORN CREEK

02-307-1806
ACTIVE

Landfill Activities

**SOLID WASTE LANDFILL NAME
FACILITY TYPE**

**PERMIT #
STATUS**

CITY OF AIKEN LANDFILL
MUNICIPAL

DWP-037
CLOSED

OWENS CORNING
INDUSTRIAL

022431-1601
ACTIVE

Mining Activities

***MINING COMPANY
MINE NAME***

***PERMIT #
MINERAL***

EC CULBREATH & SON, INC.
CULBREATH ASPHALT PLANT

0152-02
SAND

FELDSPAR PRODUCTS, INC.
EUREKA MINE #1

0821-02
SAND

KENTUCKY TENNESSEE CLAY CO.
SMITH MINE

0452-02
KAOLIN

KENTUCKY TENNESSEE CLAY CO.
ALEXANDER-RAMEY MINE

0080-02
KAOLIN

ECC AMERICA, INC.
PAYNE MINE

0792-02
KAOLIN

GL WILLIAMS & SON TRUCKING, INC.
APAC MINE

1142-02
SAND/CLAY

UNITED CATALYSTS
PROTHRO MINE

0824-02
KAOLIN

Water Supply

***WATER USER (TYPE)
WATERBODY***

***REGULATED CAPACITY (MGD)
PUMPING CAPACITY (MGD)***

CITY OF AIKEN (M)
SHAW CREEK

6.0
12.8

Growth Potential

There is a high potential for commercial growth surrounding the interchanges of Interstate 20 and U.S. Highway 1 and S.C. Highway 19; both Highways 1 and 19 have plans for widening to four lanes. Highway 19 runs through the City of Aiken and intersects with several rail lines that would increase industrial potential. The Town of Trenton has tied into the Edgefield County Water and Sewer Authority's Regional Sewer Collection System, which should enhance industrial growth.